EFFECT OF CREDIT RATING PRACTICES ON LOAN BOOK PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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DECLARATION

This research project report is my original work and has not been submitted to any other university for award of a degree.

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D61/66136/2013

This research project report has been submitted for examination with my authority as the university supervisor

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To all I say, may the Lord bless you.

DEDICATION

This research project is dedicated to my family.

ABSTRACT

Credit rating is an appraisal of the credit worthiness of an individual client, business entity or government agency. This assessment is made by a credit rating agency on the account holder's capacity to pay back a loan facility when it is due and the likely probability of default. Credit rating is one of the most critical procedures in banks and other financial institutions' credit management decisions. There exists varying relationships between the credit rating practices and its effects on the loan book performance in commercial banks. The desired relationship between a good credit rating policy and the value of the loans is directly proportionate to each other such that the higher the application of a good credit rating method, the higher the amount of loans disbursed. The aim of this study was to establish the effects of credit rating practices on the loan book performance of commercial banks in Kenya. The project aimed to determine whether historical background of customers, capacity to pay loans, credit reference report for each customer, collateral for the loan and credit rationing influence the performance of the loan book in commercial banks of Kenya. The project used a cross-sectional survey design. This study aimed at collecting and analysing data on the credit rating variable and its impact on the loan book performance of commercial banks in Kenya. The population of the study comprised of all the 44 commercial banks in Kenya. Data was collected from both primary and secondary sources. The primary data was collected using a semi-structured questionnaire while secondary data was collected from the commercial banks annual reports. Primary data collected was mainly on the extent to which the commercial banks applied credit rating practices while the secondary data collected was on the loan book performance. The data was analyzed using a multivariate regression analysis with the help of SPSS version 21. The results indicated a positive relationship between credit rating practices and performance of the loan book in commercial banks of Kenya. The regression analysis revealed that all credit rating variables had positive impacted on the performance of the loan book of commercial banks in Kenya. The most influential variable was capacity to pay loan followed by credit reference report. Historical background, collateral for the loan and credit rationing were also considered important in credit risk assessment by the commercial banks. The study concluded that credit rating practices are a predictor of loan book performance of commercial banks in Kenya. The commercial banks use both relationship and statistical models of risk assessment and all managers are involved in credit decisions. The study concluded that commercial banks consider the historical background of borrowers, capacity to pay loan, credit reference report, collateral for the loan and credit rationing in assessment of the credit risk. The most important factors were capacity to pay loan and credit reference report. The study recommended that the management of commercial banks' should emphasize use of credit rating practices to reduce on the loan default rate. The project further recommends that banks should provide unique credit products to their customers by becoming sensitive to the general prevailing economic conditions in order to achieve long-term sustainability since the customers play a key role in determining the success of the banks.

LIST OF ABBREVIATIONS AND ACRONYMS

CAR	Capital adequacy ratio
CBK	Central bank of Kenya
GDP	Gross Domestic Product
NPLR	Non-performing Loans Ratio
ROA	Return on Assets
ROE	Return on Equity
SACCO	Savings and Credit Co-operative Society
SME	Small and Medium enterprises

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Credit reference rating refers to an assessment of the credit worthiness of a borrower, especially a business (association), a legislature or individual customer. The appraisal is made by a credit rating agency on the account holder's ability to pay back the facility granted and the likelihood of non payment. Evaluation of people's credit worthiness are known as credit reporting and done by credit reporting agencies and bureaus which issue credit rating scores. The credit rating scores are used as means to gauge the capacity of the customer to reimburse the obligations when they fall due. They represent a supposition of arrived at by a reporting agency that assesses the basic credit quality of a borrower and his capacity to reliably meet his obligations (Gonzales *et al.*, 2004).

The concept of credit rating is anchored on the power theory of credit, credit risk theory, liquidity theory of credit and the information theory of credit. These theories are complementary as opposed to option; they clarify how legal entities could help financial intermediation and encourage access to credit for a bigger number of clients, some with new and little undertakings. Despite the fact that the power theory of credit principally underlines the recuperation of awful advances, it has suggestions for the aversion of awful advances. The credit risk theory expresses that the default occasion gets from an association's advantage advancement demonstrated by a dissemination procedure with consistent indicators (McDonald *et al.*, 2007).

The banking sector in Kenya is honed on the need formal and archived risk management systems. The more mind boggling a risk type is the more particular, focused and controlled it must be (Seppalla, 2000). Commercial banks in Kenya have experienced issues consistently, for a colossal number of reasons; the huge reason for genuine monetary issues keeps on being specifically connected to poor credit norms for borrowers, poor portfolio risk management or absence of consideration regarding changes in the financial, conditions and aggressive atmosphere (Central bank of Kenya Annual Supervision Report, 2006). The Central bank of Kenya (CBK, 2006) created risk management rules with the end goal of giving least directions to banks on risk management and make a working structure in accordance with worldwide best practices which oblige banks to have a completely autonomous credit risk management in charge of capital alteration and arrangement for expanding number of non-performing advances.

1.1.1 Credit Rating

Credit evaluation is one of the most essential procedures in commercial banks and other financial institutions' credit management decisions. This procedure incorporates gathering, dissecting and ordering diverse credit components and factors to evaluate the credit choices. The nature of bank credits is the key determinant of rivalry, survival and productivity. Credit rating helps in decision making by finding out what would have been the best rule to apply on a section of previous applicants. According to Thomas, Edelman and Crook, (2002) the basis of credit rating approach is to assist the bank to settle on a choice to accept or dismiss an application. It considers a case by case evaluation while assessing a loan application. It in this way alludes to the utilization of factual models to

change pertinent information into numerical measures that guide credit choices. It is in this manner alluded to as the industrialization of trust (Anderson, 2007).

Credit rating assessment has been accepted globally to be a superior method for assessing a trustworthy borrower when contrasted with the conventional techniques for hazard appraisal (Lewis, 1992). Credit scoring happens momentarily in a computerized system, permitting banks to evaluate hazard and settle on record beginning choices all the more rapidly, precisely, and dispassionately hence enhancing the portfolio. At long last, it facilitates unfavourable choice issue and brings down the cost of credit for a decent borrower while expanding credit volume and enhancing access to credit. Exact credit-allowing choices are pivotal to the productivity of the decentralized capital portion systems in advanced market economies. Accurate credit-granting decisions are crucial to the efficiency of the decentralized capital allocation mechanisms in modern market economies.

Jacka and Hand (1998) expressed that the procedure (by financial institutions) of demonstrating financial soundness is known as credit rating assessment. Data gathered by financial institutions from a credit applicant is used to develop a numerical score for each applicant (Thomas *et al*., 2002). As of late; credit rating score methods have been extended to incorporate more applications in various fields. Credit evaluation is one of the most crucial processes in banks and other financial institutions' credit management decisions. The credit rating policies adopted by each firm determines the volume of loans given to individual members. A sound credit score increases the value of loans that can

be accessed by individual customers while a rigid credit scoring strategy diminishes the volume of available loans to customers.

Miller et al (2004), indicates that most credit scoring models are created and intended to help banks anticipate the result of allowing an advance to a borrower. The model is made out of a couple of request (qualities) about the applicant. Unmistakable reactions are assessed on a point structure and converted into score weights. A competitor's score is the total of the dominant part of his or her qualities - the higher the score, the lower the danger. On the shot that the score is proportional to or higher than the score an affiliation has set up as the "remove," the hopeful demonstrates a satisfactory level of peril and the bank may offer credit to that competitor. In a modernized system, scoring happens consequently; allowing credit experts to review peril and settle on decisions all the more quickly, exactly and equitably.

Precise lending decisions are vital to the productivity of the decentralized capital allocation mechanisms in modern market economies. Credit regulators and various lenders have made and used credit-scoring models to standardize and mechanize, to the degree possible to settle on credit decisions. From a monetary viewpoint, growing the proficiency of credit task has the effect of organizing resources toward their most profitable applications, extending effectiveness, yield, advancement and sensibility. From the budgetary establishment's point of view, a little change in credit decisions can give a competitive edge in a highly competitive sector and can lead to more benefits and greater chance of survival (Glenon *et al.,* 2008).

1.1.2 Loan Book Performance

Commercial banks assume an imperative role in preparing monetary assets for speculation by giving credit to different organizations and financial specialists. Loaning speaks to the heart of the managing an account industry and advances are the predominant resources as they create the biggest share of working pay. However, loans expose the financial institutions to a higher level of risk. This necessitates a balance of both the risk incidental to high loan book size and with the income generated from the loans (Kithinji, 2010).

Loan book represents the total value of all the loans held by a financial institution. It can also be defined as the loans that a lender is owed, and is usually listed as an asset on the lender's statement of financial position. The value of a loan book is determined not only by the interest rates received from the loans, but is also determined by the quality or probability of repaying the principal and interest. One of the key functions of commercial banks is to concede advances to borrowers. Credits are among the most noteworthy yielding resources a bank can add to its asset report and they give the biggest part of income. In this regard, the banks are confronted with liquidity hazard since advances are progressed from assets saved by clients. Hamisu, (2011) takes note that credit creation includes tremendous dangers to both the moneylender and the borrower. The danger of the counterparty not satisfying his or her commitment according to the agreement on due date or at whatever time can enormously endanger the smooth working of bank's business. Then again, managing an account with high credit chance has high liquidation hazard that puts contributors' assets in danger.

Credit risk management processes uphold the banks to set up a reasonable procedure for approving new loans and the extension of existing loans. These procedures additionally take after observing with specific care, and other suitable strides are taken to control or relieve the danger of associated loaning (Basel, 2008). Lending control frameworks are essential for the appraisal of loan application, which then ensures a bank's aggregate advance portfolio according to the bank's general trustworthiness. It is important to build up a legitimate credit chance environment, sound credit allowing forms, fitting credit organization, estimation, observing and control over credit hazard, arrangement and systems that obviously outline the degree and allotment of bank acknowledge offices and also the approach in which a credit portfolio is overseen (Basel, 2008). Credit scoring strategies, evaluation of negative occasions probabilities, and the ensuing misfortunes given to these negative movements or default occasions, are immeasurably imperative elements required in credit chance administration frameworks (Altman &Saunders, 2007). Most studies have been slanted to concentrate on the issues of building up a successful technique for the transfer of these awful obligations, instead of for the arrangement of an administrative and legitimate structure for their anticipation and control (Campbell, 2007). This study therefore sought to evaluate the effect of credit rating practices on the loan book performance of commercial banks in Kenya.

1.1.3 Commercial Banks in Kenya

A commercial bank is an entity that offers financial services such as issuing money, lending money and processing transactions and creating credit. By 1980s there were 24

commercial banks in Kenya with 400 branches, agencies and commercial units. Kenya Finance Directories (2014), there were 44 commercial banks in Kenya, 1 mortgage finance company, 6 deposit taking microfinance institutions, 5 representative offices of foreign banks, 111 foreign exchange bureaus and 2 credit reference bureaus. Commercial banks in Kenya are licensed, supervised and regulated by the CBK as mandated by the Banking Act (Cap 488). Under the same Act, commercial banks in Kenya have laid down rules to operate for instance, minimum reserves, accounts and audit, information and reporting requirement, inspection and control of institutions and deposit protection fund (CBK, 2014).

The Central Bank on Development of the Banking Sector For the year ending 30th December 2012 in Kenya, banking sector continued to register improved performance with the size of assets standing at ksh.2.3 trillion, loans and advances worth ksh.1.32 trillion while the deposits base was ksh.1.72 trillion and profits before tax of ksh.80.8 billion as at December 2012. During the same period the number of bank customer deposits and loan accounts stood at 15,072,922 and 2,055,574 respectively. The banking sector's aggregate balance sheet grew by 45 percent. The main components of the balance sheet were loans and advances, government securities and placements.

1.2 Research Problem

There exists varying relationships between the credit rating practices and its impact on loan book performance of commercial banks. The expected relationship between a good credit rating policy and the value of the loans is directly proportionate to each other in that the higher the application of a good credit rating method the higher the amount of

loans disbursed. Loan book performance is a factor of so many functions in an organization; how then does the credit rating practices contribute to the financial performance of a firm? Credit rating has been vital in allowing the phenomenal growth in consumer credit through accessibility by customers (Thomas *et al.,* 2002).

Non-performing loans has been a persistent problem in Kenyan commercial banks, leading to the collapse of 37 banks as at 1998. Bad borrowers who know that banks have been operating in isolation have exploited the information asymmetry to create multiple bad debts in the banking industry in Kenya, distorting the lending business in the credit market thus adversely affecting bank performance, threatening banking sector stability and curtaining growth of the credit to the private sector due to the high interest charged on facilities to compensate on the credit risk. While the Kenyan commercial banks have faced difficulties over the years for a multitude of reasons, the major cause default problems continues to be directly related to not understanding the credit standards of borrowers and poor credit risk management (Central Bank Annual Supervision Report, 2000).

Wambugu (2010) on credit management practices in SACCOs offering front office services found out that risk identification is an important stage in credit risk management and should be applied effectively to identify the current credit risks confronting the organization, provide the likelihood of these risks occurring and reveal the type and amount of loss these risks are meant to cause if they occur. Githinji (2010) surveyed the relationship between credit scoring on 43 Banks and the loan uptake by Small and Medium enterprises (SMEs) in Kenya which revealed that the approval rate for SME loans at banks that used credit scoring was 40 percent

higher than those banks that used relationship banking only. Munene (2012) studied the impact of credit reference bureaus have in accessing finance by SMEs in Kenya. The study found out that credit bureaus could alleviate a firm financing constraints by providing information on individuals borrowing and bill paying habits.

Although research about credit risk management and role of credit reference bureaus has been carried out in depth, limited research has been carried out on the effect of credit rating practices on loan book performance of commercial banks. This study therefore sought to investigate the effect of credit rating practices on loan book performance of commercial banks in Kenya. In filling this research gap, this study attempted to answer the following research question: what is the effect of credit rating practices on loan book performance of commercial banks in Kenya?

1.3 Research Objective

The study sought to determine the effect of credit rating practices on the loan book performance of commercial banks in Kenya.

1.4 Value of the Study

From the study, researchers and academicians may use it to explore more dimensions of credit risk management in the banking industry and other financial institutions. Researchers may use this study to develop new models in mitigating risks arising from credit and other risks affecting financial performance in the banking sector.

From the findings of this study the banking industry can identify specific and effective credit rating practices to diversify credit risk in their asset portfolio and minimize the

risks involved. The study also provides an insight to investors to understand the factors that influence the returns on their investments through the understanding of the risks that affect loan book performance on their investments. To the government, the study is useful in policy making regarding access to credit and other regulatory requirements of the commercial banks.

The study makes a vital contribution to the body of knowledge in corporate finance especially in credit risk management. The findings will be useful in generating literature on the effects of credit rating practices on the financial performance of commercial banks in the developing world.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter focuses on review of theoretical, conceptual, and empirical literature along the study's conceptualization. First, the chapter presents literature on theoretical underpinnings of the study followed by conceptual and empirical literature on credit rating and financial performance. The chapter closes with a summary and knowledge gap for this study.

2.2 Theoretical Review

This study is anchored on four theories which are reviewed in this section. These theories include the Power theory of credit, Credit risk theory, Liquidity theory of credit and the Information theory of credit.

2.2.1 Power Theory of Credit

The power theory of credit is based on the exchange of control rights upon default. More grounded legitimate rights give the financial institutions more influence to compel reimbursement by seizing security, or even by taking control of the borrower's ex-post contract, amid default. This prompts a higher recuperation rate in case of default and a decline of the default chance in budgetary organizations. Furthermore, effective legal authorization of lawful rights diminishes the instability and cost confronted by these foundations in seeking after reimbursement thus, banks who work in an institutional domain portrayed by higher lawful loan boss rights and more proficient requirement of these rights indicate more ability to give acknowledge, notwithstanding for restricted data

about the borrower. In spite of the fact that the power hypothesis of credit chiefly accentuates the recuperation of awful advances, it has suggestions for the counteractive action of terrible advances (Djankov *et al*., 2005).

Arguably, the power of lenders coupled by better institutional insurance makes a more believable danger to borrowers to perform in accordance with the premium charged, which decreases the acknowledge chance related for good risk on some portion of borrowers and the cost of managing good peril and unfriendly choice. At the point when banks can all the more effortlessly constrain reimbursement, get insurance, or even pick up control of the firm, they are additionally eager to stretch out credit along these lines prompting more advances (Djankov *et al*., 2005).

2.2.2 Credit Risk Theory

In spite of the fact that individuals have been confronting credit chance as far back as early ages, credit risk has not been generally concentrated on until late 30 years. Early writing using a loan utilizes customary actuarial techniques for credit risk, whose real trouble lies in their total reliance on verifiable information. Up to now, there are three quantitative methodologies of examining credit chance: auxiliary approach, lessened shape examination and deficient data approach (Crosbie et *al*., 2003). Merton (1974) presented the credit chance hypothesis generally called the auxiliary hypothesis which said the default occasion gets from an association's advantage advancement demonstrated by a dispersion procedure with steady parameters. Such models are regularly characterized "basic model "and in light of factors related a particular guarantor. A development of this classification is spoken to by resource of models where the

misfortune restrictive on default is particular. In these models, the default can happen all through all the life of a corporate security and not just in development (Longstaff & Schwartz, 1995).

Numerous researchers including Al Amari (2002) have highlighted the significance of utilizing Credit rating assessment models as a part of assessing credit risk. In any case, Al Amari (2002) contends that there is no ideal technique. This shows one kind of rating model may work for particular budgetary organizations however neglects to work in others. He likewise thinks about different variables utilized as a part of deciding the reliability of a client, for instance to what degree is a client delegated great or terrible, which can be measured by means of factual methods.

2.2.3 Liquidity Theory of Credit

This theory, initially recommended by Emery (1984), suggests that credit rationed firms utilize more credit than those with normal access to financial institutions. The essential issue of this thought is that when a firm is monetarily obliged the offer of exchange credit can compensate for the diminishment of the credit offer from monetary establishments. As per this view, those organizations showing great liquidity or better access to capital markets can fund those that are credit proportioned. A few methodologies have attempted to get experimental proof keeping in mind the end goal to bolster this supposition.

Nielsen (2002), utilizing little firms as an intermediary for credit apportioned firms, finds that when there is a money related constriction, little firms respond by expanding the

measure of exchange credit acknowledged. As monetarily unconstrained firms are more averse to request exchange credit and more inclined to offer it, a negative connection between a purchaser's entrance to different wellsprings of financing and exchange credit utilize is normal. Petersen and Rajan (1997) acquired proof supporting this negative connection. Concurring Berger and Dark (2011), the utilization of Credit rating assessment combined with high liquidity affects the quantities of endorsed advances to private ventures (Berger et *al.,* 2005) i.e. their applications prompts much quicker and viable advance take-up.

2.2.4 Information Theory of Credit

Information theories of credit allude to the measure of credit to firms and people would be bigger if banks could better predict the likelihood of reimbursement by their potential clients. Along these lines, more monetary foundations think about the record of loan repayment of planned borrowers, the more profound credit markets would be. Open or private credit registries that gather and give expansive data to money related establishments on the reimbursement history of potential customers are vital for extending credit markets. The information that every party to a credit exchange conveys to the market will have imperative ramifications for the way of credit gets; the capacity of credit markets to match borrowers and loan specialists proficiently and the pretended by the rate of enthusiasm for apportioning credit among borrowers. The way of credit markets can prompt particular parts for various sorts of moneylenders and distinctive sorts of borrowers (Walsh, 2003).

At the point when moneylenders know more about borrowers, their record as a consumer, or different loan specialists to the firm, they are not as worried about the financing of non-practical activities, and in this manner augment more credit (Stiglitz *et al.,* 1981).

Houge and Loughran (2000) observed that speculators tend to concentrate on current income and disregard bookkeeping collections and income proclamations while surveying a potential candidate, in spite of the way that these two ignored components may give better data and have more prominent prescient esteem than current profit. One method for enhancing decision making is to learn from past failures through provision of accurate information on each party.

2.3 Determinants of Loan Book Performance in Commercial Banks

Loan book performance may be determined by several factors including; historical background of customers, capacity to pay loans, credit reference report, collateral of the loan and credit rationing.

2.3.1 Historical background of customers

Historical background is a record of a borrower's dependable reimbursement of obligations. A credit history is a record of the borrower's financial record from various sources, including banks, charge card organizations, accumulation offices, and governments. This is imperative while assessing the credit worthiness of a borrower and determines the amount to be given, duration, interest rate applicable and the need for

security. Commercial banks will usually look at the credit history of the client before making a lending decision (Aghion & Bolton, 2002).

2.3.2 Capacity to pay loans

Capacity refers to the ability of the business to reimburse the loan. This is dictated by taking a look at the credit reference report of the borrower. Srinivasan and Kim (2007), expressed that choices with respect to credit chance appraisal concern the assessment of the organizations' monetary and non-money related qualities keeping in mind the end goal to make "ideal" choices that join an exchange off between the potential danger of misfortune and the likelihood of benefits from allowing credit. Really, credit-giving choices are normally acknowledged by acknowledge and money related investigators as sorting (ordering) the organizations looking for financing from banks or credit establishments into classes as per their reliability (i.e., financially sound and ruined firms). In financial decisions, it is an obligation of credit/monetary investigators to research a vast volume of financial and non-financial information of firms, in order to gauge the corresponding credit risk and finally make crucial decisions regarding the financing of firms.

2.3.3 Credit reference report

Commercial banks will survey borrower's credit rating score by breaking down every debt item, looking at loan balances and trends and repayments track records. As a rule monetary establishments will either reject or inquiry obligation reimbursements financially past due of over two months. Some budgetary organizations are stricter than

others. Money related foundations will likewise utilize existing obligation and obligation application adjusts in the Credit rating score answer to gauge how much aggregate obligation duties the borrower has or are probably going to have and the feasible aggregate month to month obligation overhauling sum (Hasnah *et al.,* 2012).

2.3.4 Collateral

Collateral refers to security or guarantee for the loan borrowed. The security goes about as a sign empowering the bank to lessen or wipe out the unfriendly determination issue brought on by the presence of data asymmetries between the bank and the borrower at the season of the credit choice. In spite of the fact that bank knows the credit nature of the clients, the insurance mitigates moral risk issues once the advance has been allowed. Therefore, issue of good peril confronted by the bank in loaning could be controlled by having security. As expressed by Aghion and Bolton (2002), collateral can in this way be viewed as an instrument guaranteeing great conduct with respect to borrowers, given the presence of a trustworthy threat Hasnah et al (2012), established that character of management plays an important role on the likelihood of loans approved by credit officers.

2.3.5 Credit rationing

Credit rationing refers to an action taken by financial institutions to limit or reject credit based on borrowers' creditworthiness and an over-burden of loan requests. Loan fees drifting either up or down can prompt credit proportioning. The bank's credit proportioning conduct may hypothetically be affected by various components which

incorporate the borrower's discernible attributes (age, sexual orientation, riches, encounter, record as a consumer), firm qualities (business encounter, hazard profile, profit), and advance attributes (sum requested, advance development, security offered, financing cost).

Lapar and Graham (2008) contended that the bank's credit apportioning conduct against the association's advance request can be classified into three phases: the screening stage, the assessment arrange, and the amount proportioning stage. At the screening stage, the bank chief meetings the potential borrower to decide their qualification for credit (as far as their financial soundness, advance prerequisites and the terms coveted). The administrator then chooses whether the candidate is adequately met all requirements to apply for an advance or not. At the assessment arrange, the advance officer attempts a nitty gritty examination of the suitability of proposed venture extend (counting point by point examinations of the record, the sort and estimation of proposed security, administration of the firm, likelihood of reimbursement). In view of this data, the advance officer (as well as the credit advisory group) settles on a choice with reference to whether it will be beneficial for the bank to give an advance or not.

The borrowers considered to be not financially sound will be denied advances totally (credit proportioned). At the amount apportioning stage, the bank decides the ideal credit estimate for a borrower at a given loan cost. The ideal credit size will be dictated by the bank considering the bank's assessment of the likelihood of reimbursement, the minimal cost of allowing the advance, and the estimation of guarantee advertised. Amount

apportioning here alludes to a situation where a few borrowers are allowed credit sums that are not as much as what they had connected for. It is at amount proportioning stage that the bank calibrates the credit contract to mirror the bank's subjective assessment of the peril of the advance and of the borrower and the effect of these dangers on expected benefit (Lapar & Graham, 2008).

2.4 Empirical Review

Different researchers have done studies on the impact of credit risk management on financial performance of commercial banks both in Kenya and other developing nations. Owusu (2008) did a study on credit practices in rural banks in Ghana. He found that the examination of credit applications did not sufficiently evaluate the innate credit risk to manage the accepting of appropriate acclaim decision. He likewise found that the drafted credit arrangement records of the two banks needed fundamental credit management essentials like credit conveyance handle, credit portfolio blend, premise of estimating, management of issue advances among others to satisfactorily make them powerful. In his proposition he communicated that credit aggregate should be purposely studied for recognized endeavors with a particular ultimate objective to ensure agreeable financing. This circumstance gives the required budgetary assets to support activities to realization, accordingly hindering redirection of assets to different purposes, which may not be financially feasible.

Njanike (2009) assessed the extent to which failure to effectively manage credit risk led to Zimbabwe's banks' demise in 2003/2004 bank crisis. He looked at different variables

that prompted the keeping of money for emergency and to layout the parts of a powerful credit risk management framework. The study found that the inability to adequately oversee credit risk added to a more noteworthy degree to the saving money for emergency. The research further concluded that poor corporate administration, deficient risk management frameworks, not well arranged development drives, interminable liquidity challenges, remote coin deficiencies and redirection from centre business to theoretical non-banking exercises as different variables that brought on the crisis. There was a further necessity for banks to make and realize credit scoring and evaluation systems, review and overhaul the insider-advancing methodologies and get prudential corporate organization practices.

Another study by Wambugu (2010) which looked at credit management practices in SACCOs offering front office services established that risk identification is a vital stage in credit risk management and ought to be connected successfully to distinguish the present credit dangers standing up to the association, give the probability of these dangers happening and uncover the sort and measure of misfortune these dangers are intended to bring about in the event that they happen. He reasoned that the foundation of a review framework that gave precise auspicious and significant risk information in an unmistakable, effectively comprehended way is critical to risk checking.

A study by Muthee (2010) took a gander at the relationship between credit risk management and profitability in commercial banks in Kenya. The study utilized regression analysis to establish the relationship between NPLR and ROE. An estimating model was produced and tested for precision in acquiring forecasts. The findings of the

study showed that the model was reasonably critical. NPLR as an autonomous variable was directly related with the dependent variable ROE hence simple linear regression was used. The findings and examination uncovered that credit risk administration affects profitability in all the commercial banks broke that were surveyed.

In his study, Githinji (2010) researched on operating effeciency and loan portfolio indicators used by microfinance institutions established that most microfinance organisations to a large extent utilized operating efficiency pointers as a credit risk management rehearse. Proficiency and profitability proportions were used to choose how well microfinance associations streamline their credit operations. He moreover saw that microfinance institutions needed to use a blend of performance measures, for instance, profitability, working proficiency and portfolio quality pointers to evaluate their general execution.

Kargi (2011) assessed the effect of credit risk on the profitability of Nigerian banks. Financial ratios as indicators of bank performance and credit risk were collected from the annual records of inspected banks from 2004-2008 and analyzed utilizing descriptive statistics and regression model. The discoveries uncovered that credit risk administration significantly affects the performance of Nigerian banks. The study inferred that banks' benefit is contrarily impacted by the levels of advances and nonperforming advances and stores in this way presenting them to incredible danger of illiquidity and loss.

A comparable study by Musyoki et al (2011) explored on different parameters to credit risk and their impact on banks financial performance in Kenya. Financial reports of 10 banks were utilized to examine profitability ratio for seven years (2000-2006) contrasting profitability ratio to default rate, cost of obligation gathering and cost per advance resource which was displayed in elucidating. Regression and Correlation analyses were used to analyze the data. The study uncovered that every one of these parameters inversely affect bank`s financial performance, however the default rate was the most indicator of bank financial performance compared to alternate pointers of credit risk management.

Grace (2012) looked at the effect of credit risk management on the financial performance of commercial banks. The descriptive research design was used to conduct the research. The study showed a significant relationship existed between financial performance and credit risk management. Further analysis revealed there was a significant negative relationship between return on equity (ROE) and both capital adequacy ratio (CAR) as well as non-performing loans ratio (NPLR). NPLR had a greater significant effect on ROE compared to CAR.

Magnifique (2013) examined the effect of credit risk management and financial performance of commercial banks in Rwanda. The four specific objectives of the study were how credit risk analysis and assessment, credit risk identification, credit scoring and risk monitoring mechanism influenced financial performance of commercial banks in Rwanda. The descriptive research design was utilized to assess the impact of legislation on financial performance of commercial banks. A questionnaire was used to collect

primary data which was analyzed with the help of SPSS. The study concluded that all the measures of credit risk management had a positive and significant effect on commercial banks' financial performance in Rwanda with an exception of risk monitoring.

Abiola and Olausi (2014) did a study on the impact on commercial banks' financial performance of credit risk management among Nigeria banks. Data for seven years (2005 – 2011) from the financial statements of seven commercial banks was used. For the estimation of the model the panel regression approach was utilized. In the model, Return on Asset (ROA) and Return on Equity (ROE) were used as the performance measures while Capital Adequacy Ratio (CAR) and Non-Performing Loans (NPL) used as measures of credit risk management. The study uncovered that credit risk management significantly affects the Nigerian commercial banks' profitability.

2.5 Summary of Literature Review

The literature review identifies a range of factors that have been shown to be consistently linked to the growth of the loan portfolio in various financial institutions. These include the historical records of each client, the earnings and capital base of each client, the economic factors, and the liquidity position of the firm amongst other. Evidence on the impact of each is still inconclusive more so in the banking industry, although keeping each variable in line with market expectations is certainly critical to increasing the lending capacity to a member.

The Key issues coming from the discussions above shows that there is no clear one factor that determines the financial performance of commercial banks; the factors affecting one

financial institution vary from one institution to another. Arising from the factors above there is need to research on the effects of the credit rating practices currently adopted by commercial banks on their financial performance. This study therefore sought to fill in the research gap in establishing how the credit rating practices affect the financial performance of commercial banks in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with how the research was conducted in order to achieve the study objective. This chapter presents the research design and methodology that was used to carry out the research. The section additionally examines the study population, data collection methods and data analysis techniques.

3.2 Research Design

The researcher utilized a cross-sectional survey design. A cross-sectional survey aims to ascertain the variables linked with certain events, outcomes, conditions or types of behaviour. This was considered appropriate for this study since it involved in-depth investigation of the effect of credit rating practices and their effect on loan book performance of commercial banks in Kenya. A descriptive study was therefore undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in the study.

3.3 Population of Study

Target population refers to the number of elements to which a researcher wants to generalize the results of the study (Mugenda & Mugenda, 2003). The population of interest for the study comprised of all licensed commercial banks in Kenya. As at December 2014, there were 44 licensed commercial banks. This study thus constituted a census of the financial reports of 44 licensed commercial banks in the period 2010 to

2014. This is because credit rating practices became compulsory to all banks during this period.

3.4 Data Collection

The study used both secondary and primary data. Secondary data was derived from the financial statements of the commercial banks. This included the statement of comprehensive income and statement of financial position of the commercial banks. The variable used was loan book performance as measured by loan default rate which was computed as follows:

$$\text{Loan default} = \frac{\text{Total non-performing loans}}{\text{Total loans and advances}}$$

The primary data was assembled utilizing semi-structured questionnaires that took into account consistency of reactions to questions. Surveys take into account more prominent consistency in the way inquiries are asked, guaranteeing more noteworthy similarity in the responses. A five point non-similar Likert scale was utilized for the closed ended questions. The expectation of the Likert was that the statements address various parts of a similar attitude. Likert scales are easy to develop and are simple for the respondents to peruse, comprehend and react suitably to the statements put over.

3.5 Data Analysis

The data collected was first cleaned, edited, coded and classified into the different study variables before undertaking the analysis. The data was then analyzed using the Statistical Package for Social Sciences (SPSS) and shown in the report in the form of

graphs, bar charts and tables. Regression analysis was performed to establish the relationship between the dependent and independent variables. The regression model used was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where:

Y = Loan book performance (as measured by loan default rate)

$\beta 0$ = constant: It defines the level of credit rating without inclusion of predictor variables

$\beta_1 - \beta_5$ = regression coefficients

X_1 = Historical background of customers

X_2 = Capacity to pay loans

X_3 = Credit reference report for each customer

X_4 = Collateral for the loan

X_5 = Credit Rationing

ε = Error term

The significance of each of the regression co-efficient was tested at 95 percent level of confidence to explain the variable that has the greatest impact on the dependent variable.

3.5.1 Operationalization of Study Variables

The table below shows the operationalization of the study variables:

Table 3.1: Operationalization of Study Variables

Variable		Operationalization
1	Loan book performance	Measured by the loan default rate
2	Historical background of customers	Measured by the number of years customer has operated account
3	Capacity to pay loans	Measured by the customers' net cash flow
4	Credit reference report for each customer	Measured by the credit rating scores
5	Security for the loan	Measured by the value of assets offered as security
6	Credit Rationing	Measured by the supply of loanable funds against demand

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The objective of this study was to determine the effect of credit rating practices on the loan book performance of commercial banks in Kenya. Out of the targeted 44 commercial banks, 40 (91%) responded to the questionnaire with a non-response rate of 9%. This was viewed as sufficient for the objective of this study. In this chapter, the analyzed data is presented together with the relevant interpretations. Findings have been presented in three parts: information relating to credit risk assessment, credit rating practices and finally the relationship between the credit rating practices and loan book performance.

4.2 Credit Risk Assessment

The study sought to establish the credit risk assessment methods used by the commercial banks to evaluate loan applications. In this section the data collected is analyzed for each variable assessed.

4.2.1 Method of loan assessment

The respondents were first required to indicate the method used to evaluate loan applications by their bank. Data collected was analyzed and the results are presented on Table 4.1.

Table 4.1: Method of loan assessment

Method	Frequency	Percentage (%)
Relationship Banking (Human Assessment)	8	20
Statistical Methods (Credit Scoring)	5	12.5
Both	27	67.5
Total	**40**	**100**

Source: Research data (2016)

Table 4.1 shows that 8 (20%) commercial banks use relationship banking, 5 (12.5%) use statistical methods while 27 (67.5%) use both relationship and statistical methods. The results indicate that majority of the commercial banks use both methods to evaluate loan applications of their customers.

4.2.2 Credit Rating Model Used

The study also required the respondents to indicate which credit rating model the banks use to assess the credit worthiness of their customers. Data captured was then analyzed and is presented on Table 4.2.

Table 4.2: Credit Rating Model Used

Model	Frequency	Percentage (%)
Linear probability and logit model	18	45
Risk-adjusted return on capital	10	25
Option pricing theory models	8	20
Neural networks	4	10
Total	**40**	**100**

Source: Research data, 2016

From table 4.2 it is evident that 45% of the commercial banks surveyed use linear probability and logit model, 25% use risk-adjusted return on capital, 20% use option

pricing theory models while 10% use neural networks. This implies that majority of the banks surveyed use linear probability and logit model.

4.3 Factors Considered in Borrower Evaluation

The study also investigated the factors considered when assessing the creditworthiness of borrowers. The factors assessed were historical background of customers, capacity to pay loans, credit reference report for each customer, collateral for the loan and credit rationing. The data was analyzed using mean scores and standard deviations. A mean score of less than 1.5 implies that the respondent rated the factor as less important. A mean score of 1.5 to 2.5 implies slightly important, 2.5 to 3.5 moderately important and 3.5 to 4.5 implies important. A mean score of more than 4.5 implies very important. A Standard deviation of less than 1 means that there were no significant variations in the responses while greater than 1 implies that there were significant variations in the responses. The analyzed results are shown on table 4.3.

Table 4.3: Factors Considered in Borrower Evaluation

Factors	**Mean**	**Stdev**
Historical background of customers	4.3	0.8
Capacity to pay loans	4.6	0.9
Credit reference report for each customer	4.5	0.6
Collateral for the loan	4.2	0.9
Credit rationing	3.8	0.7
Overall	**4.3**	**0.8**

Source: Research data, 2016

The table shows that all the factors are important when assessing the credit worthiness of borrowers (overall mean score, 4.3). The most important factors are capacity to pay loans (4.6) and credit reference report for each customer (4.5). All the other factors were rated as important; historical background of customers (4.3), collateral for the loan (4.2) and

credit rationing (3.8). There were no significant variations in the responses as the standard deviation was less than 1.

4.4 Credit Rating Practices

The respondents were then required to indicate how frequently the management were involved in the formulation of credit scoring models and credit policies as well as loan decisions. These included the Senior Management, Board of Directors, Credit Managers , Credit Analyst, Credit Committee and the Branch Manager. The data was analyzed using mean scores and standard deviations. A mean score of less than 1.5 implies that the manager is never involved. A mean score of 1.5 to 2.5 implies rarely involved, 2.5 to 3.5 occasionally involved and 3.5 to 4.5 implies frequently. A mean score of more than 4.5 implies very frequently involved. A Standard deviation of less than 1 means that there were no significant variations in the responses while greater than 1 implies that there were significant variations in the responses. The findings of the mean scores and standard deviation are shown in Table 4.4 and 4.5.

Table 4.4: Involvement in Credit Rating Policy Formulation

Statement	Mean	Stdev
Senior Management	4.1	0.9
Board of Directors	3.4	0.8
Credit Managers	4.6	0.9
Credit Analyst	4.5	0.7
Credit Committee	4.4	0.8
Branch Manager	4.1	0.9
Overall	**4.2**	**0.8**

Source: Research data, 2016

Table 4.4 indicates that all the managers are frequently involved in the formulation of credit rating policies except the board of directors. The senior management (4.1), credit

committee (4.4) and the branch manager (4.1) are all frequently involved in the formulation of credit scoring models and credit policies. The credit managers (4.6) and credit analysts (4.5) are very frequently involved while the board of directors (3.4) are occasionally involved. This implies that credit managers and credit managers are most involved. There were no significant variations in the responses as the standard deviation was less than 1.

Table 4.5: Involvement in Loan Decision Making

Statement	Mean	Stdev
Senior Management	3.1	0.8
Board of Directors	2.3	0.6
Credit Managers	4.8	0.9
Credit Analyst	4.5	0.8
Credit Committee	4.6	0.6
Branch Manager	4.6	0.7
Overall	**4.0**	**0.7**

Source: Research data, 2016

Table 4.5 shows that credit managers (4.8), credit analysts (4.5), credit committee (4.6) and branch managers (4.6) are all very frequently involved in loan decision making. The senior management (3.1) are occasionally involved while the board of directors (2.4) are rarely involved. This implies that credit managers, credit analysts, credit committee and branch managers are most involved in loan decisions. There were no significant variations in the responses as the standard deviation was less than 1.

4.5 Regression Analysis

In order to understand the relationship between credit rating practices and loan book performance among commercial banks in Kenya a regression analysis was performed. The dependent variable was loan book performance of the commercial banks as measured

by loan default rate while the independent variables were historical background of customers, capacity to pay loans, credit reference report, collateral of the loan and credit rationing. The loan book performance was obtained from commercial bank's financial reports for the period 2010 to 2014. The regression results are presented below.

Table 4.6 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.482[a]	.232	.155	2.79797
a. Predictors: (Constant), Historical background of customers, Capacity to pay loans, Credit reference report, Collateral of the loan and Credit rationing.				

Source: Research data, 2016

Table 4.6 shows that the coefficient of correlation (R) is positive 0.482. This means that there is a positive correlation between credit rating practices and loan book performance of commercial banks in Kenya. The coefficient of determination (R Square) indicates that 23.2% of the loan book performance of commercial banks in Kenya is influenced by credit rating practices. The adjusted R^2 however, indicates that 15.5% of the loan book performance of commercial banks in Kenya is influenced by credit rating practices leaving 84.5% to be influenced by other factors.

Table 4.7: ANOVA

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.916	5	14.1832	2.053	.045[a]
	Residual	234.859	34	6.9076		
	Total	305.774	39			
a. Predictors: (Constant), Historical background of customers, Capacity to pay loans, Credit reference report, Collateral of the loan and Credit rationing						
b. Dependent Variable: Loan book Performance						

Source: Research data, 2016

Table 4.7 shows the Analysis of Variance (ANOVA). The p-value is 0.045 which is < 0.05. This implies that the independent variables are predictors of the dependent variable. This means that historical background of customers, capacity to pay loans, credit reference report, collateral of the loan and credit rationing influence loan book performance of commercial banks in Kenya.

Table 4.8 Regression Coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.205	3.649		1.152	.058
	Historical background of customers	.707	.943	.122	.750	.005
	Capacity to pay loans	2.322	.849	.250	2.735	.000
	Credit reference report	2.247	.972	.374	2.311	.001
	Collateral of the loan	1.852	.675	.345	2.744	.008
	Credit rationing	.257	.789	.476	.326	.028
a. Dependent Variable: Loan book Performance						

Source: Research data, 2016

From the Coefficients table (Table 4.8) the regression model can be derived as follows:

$$\mathbf{Y = 4.205 + 0.707\, X_1 + 2.322X_2 + 2.247X_3 + 1.852X_4 + 0.257X_5 + \varepsilon}$$

The results in table 4.8 indicate that all the independent variables have a positive effect on loan book performance. The most influential variable is capacity to pay loans with a regression coefficient of 2.322 (p-value = 0.000), followed closely by credit reference report with a coefficient of 2.247 (p-value = 0.001), then collateral of loan with a coefficient of 1.852 (p-value = 0.008), historical background of customers with a regression coefficient of 0.707 (p-value = 0.005) and lastly credit rationing with a coefficient of 0.257 (p-value = 0.028). According to this model when all the independent variables values are zero, the loan book performance of the commercial banks will be 4.205.

At 5% level of significance and 95% level of confidence, capacity to pay loans had a 0.000 level of significance, credit reference report showed a significance level of 0.001, collateral of loan had 0.008, historical background of customers 0.005 and credit rationing 0.028. The significance value is .045 (Table 4.7) which is less that 0.05 thus the model is statistically significant in predicting how credit rating practices affect the loan book performance of commercial banks in Kenya. The F critical at 5% level of significance was 2.053. Since F calculated (value = 2.49) is greater than the F critical, this shows that the overall model was significant.

4.6 Discussion of Results

The objective of this study was to determine the effect of credit rating practices on the loan book performance of commercial banks in Kenya. Results on credit risk assessment

methods used by the commercial banks to evaluate loan applications showed that 20% of the commercial banks use relationship banking, 12.5% use statistical methods while 67.5% use both relationship and statistical methods. The results indicate that majority of the commercial banks use both methods to evaluate loan applications of their customers. Results on credit rating model used by the commercial banks indicate that 45% of the commercial banks use linear probability and logit model, 24% use risk-adjusted return on capital, 19% use option pricing theory models while 12% use neural networks.

The findings on the importance of various factors in credit assessment showed that the most important factors were capacity to pay loans and credit reference report for each customer. However, historical background, collateral for the loan and credit rationing were also considered important. With regard to the involvement of management in the formulation of credit scoring models, credit policies and loan decisions, the findings showed that the senior management, credit committee and the branch manager are all frequently involved in the formulation of credit scoring models and credit policies while the board of directors are occasionally involved. Credit managers, credit analysts, credit committee and branch managers are most involved in loan decisions.

The regression model indicates that all the independent variables have a positive effect on loan book performance. The most influential variable is capacity to pay loans followed by credit reference report, collateral of loan, historical background of customers and lastly credit rationing.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter provides a summary, conclusion and recommendations to the study based on research findings. The study sought to determine the effect of credit rating practices on the loan book performance of commercial banks in Kenya.

5.2 Summary

5.2.1 Credit rating practices

The study established that the commercial banks in Kenya use both relationship and statistical methods for credit risk assessment. This implies that the commercial banks use both human assessment and credit scoring to assess the credit worthiness of the borrowers. Results on credit rating model used by the commercial banks indicate that most commercial banks use linear probability and logit model. This model uses past data to explain repayment experience on old loans as a basis to forecast default probabilities on new loans. However, some banks use the other models; risk-adjusted return on capital, option pricing theory and neural networks.

5.2.2 Determinants of loan book performance

The analysis of the determinants of loan book performance was based on five variables: historical background of customers, capacity to pay loans, credit reference report, collateral of the loan and credit rationing. Findings indicate that although all the factors were important, capacity to pay loans and credit reference report were the most important factors in credit risk assessment. The senior management, credit committee and the

branch managers are all frequently involved in the formulation of credit scoring models and credit policies while the board of directors are occasionally involved. Credit managers, credit analysts, credit committee and branch managers are most involved in loan decisions.

5.2.3 Effect of credit rating practices on loan book performance

The regression model indicated that all the independent variables have a positive effect on loan book performance. The most influential variable was capacity to pay loans followed by credit reference report, collateral of loan, historical background of customers and lastly credit rationing. The capacity refers to the ability of the business or individual to repay the loan. This is determined by looking at the credit reference report of the borrower in order to establish whether or not they will be able to service the loan. Credit-granting decisions are therefore realized by credit and financial analysts sorting (classifying) the firms seeking financing from banks or credit institutions into categories according to their creditworthiness (i.e., creditworthy and insolvent firms). This enables the commercial banks to estimate the corresponding credit risk and hence make crucial decisions regarding the financing of firms.

These factors will therefore determine the size of the loan book of commercial banks. Effective credit rating practices will result in lower levels of credit risk leading to reduced loan default rates. Therefore credit rating practices influence the loan book performance of commercial banks in Kenya positively.

5.3 Conclusion

The findings of this study reveal that the credit rating practices employed influence the loan book performance of commercial banks in Kenya. The commercial banks in Kenya use both human assessment and credit scoring to assess the credit worthiness of the borrowers. It can also be concluded that most commercial banks use linear probability and logit models to assess the credit worthiness of the borrowers. However, some banks use the other models including risk-adjusted return on capital, option pricing theory and neural networks.

The study also concludes that the commercial banks in Kenya consider the historical background of borrowers, capacity to pay loan, credit reference report, collateral for the loan and credit rationing in assessing the credit risk. The most important factors were capacity to pay loan and credit reference report of the borrowers. All these factors are important in assessing the credit risk and influence the amount of loan advanced as well as the repayment period and interest rate. Credit rating practices therefore influence to a great extent the loan book performance of commercial banks in Kenya. The findings showed that the senior management, credit committee and the branch managers are all frequently involved in the formulation of credit scoring models and credit policies while the board of directors are occasionally involved. Credit managers, credit analysts, credit committee and branch managers are most involved in loan decisions. All the independent variables have a positive effect on loan book performance. The most influential variable is capacity to pay loans followed by credit reference report, collateral of loan, historical background of customers and lastly credit rationing.

5.4 Recommendations

The findings of this study underline that the credit rating practices adopted by commercial banks in Kenya influence the loan book performance. The study recommends that the management of commercial banks in Kenya should develop credit rating policies to reduce the risks associated with giving loans to customers. The commercial banks should also be made more competitive with other financial service providers to ensure high levels of turnover. The findings highlight the relative significance of historical background of borrowers, capacity to pay loans, credit reference report, collateral for the loan and credit rationing. The commercial banks need to adequately address these factors while developing their credit rating policies.

Commercial banks need to aggressively improve their capacity in the management of credit to improve their turnover by developing credit policies that would cushion them from the risks of credit defaults. They should also provide unique credit products to their customers by becoming sensitive to the general prevailing economic conditions in order to achieve long-term sustainability since the customers are important in determining the success of the banks. The commercial banks should also make sure that they abide by their credit policies and regulations.

5.5 Limitations of the Study

The outcome of this research was based on only one respondent per bank. This was a limitation of this study, since it is possible that the use of more respondents per institution could have provided a different picture and results. This study is nevertheless a step

towards providing insight on the effects of credit rating practices on the loan book performance among commercial banks in Kenya.

5.6 Suggestions for Further Research

The study was conducted on commercial banks in Kenya. The findings can be verified by conducting the same study in other countries as well. This will help to identify if other countries have similar or different results. Further studies could be done on the effect of credit rating practices on loan book performance of micro finance institutions or SACCOs.

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APPENDICES

Appendix 1: Questionnaire

Declaration: This is an academic research project aimed at determining the effects of credit rating practices on the financial performance of commercial banks in Kenya. There is no right or wrong answer and any information given will be held in confidence for academic use only. Thank you in advance for taking your valuable time to participate.

Part A: Background Information

1. Name of Bank ………………………………………………………………………
2. Year of Establishment ……………………………………………………………
3. Position of the respondent…………………………………………………………..
4. Ownership of the bank

   Government ( )

   Private (Local) ( )

   Foreign Owned ( )

   Quoted in the NSE ( )

Part B: Credit Risk Assessment

1. Which of the following credit assessment methods are used to evaluate loan applications?

   Relationship Banking (Human Assessment) ( )

   Statistical Methods (Credit Scoring) ( )

   Both ( )

2. Do you use any Credit Scoring Model in credit risk assessment for SME loan applications?

   Yes ( ) No ( )

3. Which Credit Rating Model do you currently use?

a. Linear Probability and Log it Model ( )

[This model uses past data to explain repayment experience on old loans as a basis to forecast default probabilities on new loans.]

b. Risk adjusted Return on Capital ( )

[This model measures how much the risk is taking. It is calculated by evaluating the expected return against the value at risk.]

c. Option-Pricing Theory Models ( )
[This method assumes that if in some future period, the value of the borrower's assets falls below the value of debt, the borrower is likely to default. The probability of default is inferred from an estimate of the firms' asset price based on the observed volatility of a firms equity prices.]

d. Neural Networks ( )
[These are artificial intelligence algorithms that allow for learning through experience to discern the relationship between borrower characteristics and the probability of default. No assumptions are made about the functional form of relationship between characteristics and probabilities of default.]

e. Others ( )

Please specify if other method used
……………………………………………………………

4. In your opinion, does the use of credit rating models improve the credit decision?
Yes ( ) No ( )

5. Has the bank used another model of Credit rating in the past?

Yes ( ) No ( )

a. If yes what method was used?

Linear Probability and Log it Model ( )

Risk adjusted Return on Capital ( )

Option-Pricing Theory Models ( )

Neural Networks ( )

Other ( )

Please specify if other method used
……………………………………………………………

6. Which of the following characteristics do you consider in the evaluation of an applicant before availing credit? Please list in order of importance where:

5- Very Important, 4 –Important, 3 - Moderately Important, 2 - Slightly Important and 1 - Not Important

	1	2	3	4	5
a) Character of the borrower (Customer willingness to pay as well as past performance in repayment)	( )	( )	( )	( )	( )
b) Capacity to pay (Cash in bank, projected cash flows, financial history and business skills)	( )	( )	( )	( )	( )
c) Economic conditions (Current economic conditions and credit discipline)	( )	( )	( )	( )	( )
d) Collateral/Security available (Total assets available)	( )	( )	( )	( )	( )
e) Capital	( )	( )	( )	( )	( )

(Borrowers wealth condition: will the borrower be able to service the debt with changes in earnings?)

Part C: Credit rating practices

1. How regularly do you review your credit rating policy?

Quarterly ( )

Semi-annually ( )

Annually ( )

Others (please specify): ……………………………………………………………….

2. Who is involved in the formulation of credit scoring models and credit policies? Please
indicate the level of involvement as follows: 5 – Very frequently, 4 – Frequently, 3- Occasionally, 2 – Rarely 1 - Never

	1	2	3	4	5
Senior Management	( )	( )	( )	( )	( )
Board of Directors	( )	( )	( )	( )	( )
Credit Managers	( )	( )	( )	( )	( )
Credit Analyst	( )	( )	( )	( )	( )
Credit Committee	( )	( )	( )	( )	( )
Branch Manager	( )	( )	( )	( )	( )

Others (please specify)
…………………………………………………………………………

3. Who is involved in the credit decision making for loans? Please indicate the level of involvement as follows: 5 – Very frequently, 4 – Frequently, 3 – Occasionally, 2 – Rarely 1 - Never

	1	2	3	4	5
Senior Management	( )	( )	( )	( )	( )
Board of Directors	( )	( )	( )	( )	( )

Credit Managers	( )	( )	( )	( )	( )
Credit Analyst	( )	( )	( )	( )	( )
Credit Committee	( )	( )	( )	( )	( )
Branch Manager	( )	( )	( )	( )	( )

Others (please specify)

……………………………………………………………………

Thank you for your time and co-operation.

Appendix 2: Introduction Letter

UNIVERSITY OF NAIROBI
MOMBASA CAMPUS

Telephone: 020-2059161
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsities
Our Ref: D61/66136/2013

Tel: 020 2059161
Mombasa, Kenya

DATE: 11TH AUGUST, 2016

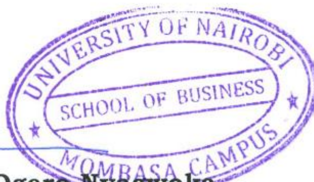
TO WHOM IT MAY CONCERN

The bearer of this letter, **Geoffrey Kisaka** of Registration Number **D61/66136/2013** is a Master of Business Administration (MBA) student of the University of Nairobi, Mombasa Campus.

He is required to submit as part of his coursework assessment a research project report. We would like the student to do his project on ***Effects of Credit Rating Practices on Loan Book Performance of Commercial Banks in Kenya.*** We would, therefore, appreciate if you assist him by allowing him to collect data within your organization for the research.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organization on request.

Thank you.



Zephaniah Ogero Nyagwoka
Administrative Assistant, School of Business-Mombasa Campus

Appendix 3: List of Commercial Banks in Kenya

1 African Banking Corporation, Nairobi
2 Bank of Africa Kenya, Nairobi
3 Bank of Baroda, Nairobi
4 Bank of India, Nairobi (foreign owned)
5 Barclays Bank of Kenya, Nairobi (listed on NSE)
6 CFC Stanbic Bank, Nairobi (listed on NSE)
7 Chase Bank Ltd, Nairobi
8 Citibank, Nairobi (foreign owned)
9 City Finance Bank, Nairobi
10 Co-operative Bank of Kenya, Nairobi
11 Commercial Bank of Africa, Nairobi
12 Consolidated Bank of Kenya Ltd, Nairobi
13 Credit Bank Ltd, Nairobi
14 Development Bank of Kenya, Nairobi
15 Diamond Trust Bank, Nairobi
16 Dubai Bank Kenya Ltd, Nairobi
17 Equatorial Commercial Bank Ltd, Nairobi
18 Equity Bank, Nairobi
19 Family Bank, Nairobi
20 Fidelity (Commercial) Bank Ltd, Nairobi
21 Fina Bank Ltd, Nairobi
22 First Community Bank Ltd, Nairobi
23 Giro Commercial Bank Ltd, Nairobi
24 Guardian Bank, Nairobi
25 Gulf African Bank Ltd, Nairobi
26 Habib Bank A.G. Zurich, Nairobi (foreign owned)
27 Habib Bank Ltd, Nairobi (foreign owned)
28 Housing Finance Co. Ltd, Nairobi (gov) (listed on NSE)
29 Imperial Bank, Nairobi
30 I&M Bank Ltd (former Investment & Mortgages Bank Ltd), Nairobi
31 K-Rep Bank Ltd, Nairobi
32 Kenya Commercial Bank Ltd, Nairobi (gov) (listed on NSE)
33 Middle East Bank, Nairobi
34 National Bank of Kenya, Nairobi (gov)
35 National Industrial Credit Bank Ltd (NIC Bank), Nairobi (listed on NSE)
36 Oriental Commercial Bank Ltd, Nairobi
37 Paramount Universal Bank Ltd, Nairobi
38 Prime Bank Ltd, Nairobi
39 Southern Credit Banking Corp. Ltd, Nairobi
40 Standard Chartered Bank , Nairobi (listed on NSE)
41 Trans-National Bank Ltd, Nairobi
42 UBA Kenya Bank Ltd., Nairobi
43 Victoria Commercial Bank Ltd, Nairobi
44 Jamii Bora Bank

Source: CBK, (2014)